Identical Values in Conflicting Roles:
The Use of German ausgerechnet, eben, genau
and gerade as focus particles.

Ekkehard König (University of Hannover)

0. Introduction

Among the lexical elements traditionally categorized
as adverbs, a few subclasses can be identified on the basis
of both their syntactic and semantic properties. One of
those subclasses, whose specific properties have been dis-
cussed in a variety of papers in recent years (cf. Altmann,
1976; 1978; König, 1977; 1981; 1986; Jacobs, 1983 for
German; Karttunen & Peters, 1978; Ross & Cooper, 1979;
Taglicht, 1984 for English) is that of 'focus particles',
'focusing adjuncts' or 'scalar particles'. In the studies
just mentioned as well as in a few analyses of individual
particles, the syntactic and semantic properties of elements
like German auch, nur, sogar, selbst, schon, erst, auch nur
or English also, too, even, only, merely, either have been
analyzed in a way that enables us to account for a wide
variety of uses of these elements, including the role that
they play in conditional or concessive clauses like (1) or
free choice expressions like (2):

    (1) a. Only if you help him he will be able to finish
         his work in time.
       b. Even if you help him, he will not be able to
         finish his work in time.
       c. If only you had helped him.
       d. Even though I helped him, he was unable to
         finish his work in time.

(2) (G) Wer das auch (immer) behauptet hat,
        er hatte Unrecht.
    'Whoever said that was wrong.'

Unfortunately, however, the semantic analysis successfully developed for some core instances of focus particles in the studies mentioned above does not seem to be applicable to other, less central cases of the same class. The semantic parameters identified for instance in Karttunen & Peters (1979), König (1981, 1986) or Jacobs (1983) do not seem to throw much light on the meaning of German ausgerechnet, eben, genau, gerade and related elements in other European languages (cf. Jacobs, 1983:240). In the present paper, an attempt will be made to fill this gap. On the basis of the characterization given for the distribution of these elements in Altmann (1978), I will try to characterize at least some aspects of the meaning of ausgerechnet, eben, genau und gerade. These expressions, though not interchangeable in all contexts, overlap in their meaning and use to a large extent. I will concentrate on the properties they share rather than on specific differences. The main focus of this paper will be on German. But since some of the properties identified below derive from general pragmatic principles, it seemed advisable to adopt a cross-linguistic perspective and to include related particles of other Germanic languages (like E. even, just, exactly; D. juist, net; Dan. netop, *Finn. juuri)* into the analysis. Furthermore, it also seemed advisable to add a historical perspective to the whole discussion and to support some aspects of the synchronic analysis by historical evidence.

The outline of this paper is as follows: In the first section a brief summary will be given of the state of the art with respect to the analysis of focus particles. In section 2 I will show that the particles to be analyzed have a wide variety of uses. If we differentiate between

these uses by assigning the relevant expressions to
different subclasses of adverbs, we nevertheless have to
develop related semantic analyses for all of these uses.
In sections 3 and 4 an analysis for the use of ausgerechnet,
eben, genau and gerade as focus particles will be proposed.
I will argue that the basic function of these elements is
to emphatically assert the identity to two values in two
different propositional schemata and that some additional
properties of these elements derive from the fact that such
an emphatic assertion of identity is only necessary and rele-
vant in certain contexts. In section 4, the implications of
this analysis for the other uses will be examined and, finally,
the analysis is confronted with what we know about the histo-
rical development of the expressions under analysis (section 5).

2.   The meaning of focus particles

     One of the most striking syntactic properties of focus
particles is their positional variability, which enables
them to wander, as it were, right through a sentence
(cf. Jacobs, 1983: 4f.):

     (3) a. Even FRED collected money for the children.
          b. Fred even COLLECTED money for the children.
          c. Fred collected even MONEY for the children.
          d. Fred collected money even for the CHILDREN.

The examples given in (3) show that different positions of
a particle correlate with (a) different relations that the
particle contracts within the sentence, (b) different into-
nation patterns, specifically different locations of the
nuclear tone and (c) different interpretations, i.e. different
contributions made by the particle to the meaning of the
sentence. More specifically, focus particles are associated
with a focused constituent of the sentence, which typically
also functions as utterance focus. This association is

particularly evident in the fact that there are (language-specific) constraints on the possible positions of a particle relative to its focus. A sentence-initial <u>even</u> in English may focus only on the following constituent, whereas the same particle in final position can select any preceding constituent as focus (cf. Ross & Cooper, 1979):

(4) a. Even FRED gave some money to the children.
    b. FRED gave some money to the children, even.

Another syntactic property which clearly distinguishes focus particles from other adverbs is the possibility of having two instances of the same particle in a simplex sentence:

(5)   Only Satanas pities only Satanas.

Semantically, focus particles are best analysed as operators that combine with a structured proposition, i.e. a proposition consisting of an open sentence or complex predicate (the scope of the particle) and a suitable argument (the particle focus). To base the semantic interpretation of sentences with particles on such an underlying representation enables us to account for the fact that the contribution made by the particle to the meaning of a sentence depends on both that of its focus and that of its scope. In order to map surface structures like (4)a. unto such semantic representations, we need the following translation rules: The focus expression is replaced by a variable, which is bound by a λ - operator. The extracted expression is shifted to the right and the particle is prefixed to the result of these operations:

(6)   even (λ x [x gave some money to the children], Fred)

On the basis of representations like (6), the contribution made by focus psrticles to the meaning of a sentence can now

be described as follows: Like other focusing operators
(e.g. clefting, contrastive stress, wh-questions, meta-
linguistic negation, etc.), focus particles select alter-
natives to the value of the focus expression and raise the
question of whether these alternatives satisfy the open
sentence in their scope. This question admits of two
possible answers and we may accordingly distinguish two
groups of particles: those which include alternatives as
possible values for the variable of their scope (additive
particles) and those which exclude them (restrictive par-
ticles). Even, also, too in English and auch, selbst, sogar,
schon, besonders in German belong to the former group,
E. only, merely and G. nur, erst, allein belong to the latter.

The selection of alternatives is subject to several
constraints. First, only those values are selected as alter-
natives by any particle that are under consideration in a
certain context. Furthermore, only values of the same type
as the one denoted by the focus are selected. In addition
to these general constraints, some particles only select
such alternatives as are ordered with respect to the focus
value in a certain way. to use (4)a. again for exemplifi-
cation, even characterizes its focus value as maximal for
the relevant open sentence, as the most unlikely value to
make this open sentence true, among all alternatives under
consideration (cf. Karttunen & Peters, 1979). As a con-
sequence, (4)a. suggests that Fred is mean. In English,
even, let alone, so much as, in particular and, to a
certain extent, also only induce such an ordering; in
German, sogar, selbst, gleich, schon,erst, noch, etc. belong
to this subgroup of 'scalar' particles. German erst, to give
another example, typically implies a temporal scale:

(7)   Paul kommt erst um 8 Uhr.
        'P. won't be here until eight o'clock.'

Closely related to this ordering induced by many particles
is another aspect of their meaning. The particles which
imply such an ordering also express an evaluation: The
value given by the focus is characterized as ranking
either high or low relative to the alternatives under
consideration. That <u>even</u> evaluates a focus value as
'maximal' (or 'most unlikely') has already been mentioned.
A similar evaluation as 'maximal' is expressed by
G. <u>selbst</u>, <u>sogar</u> and <u>gleich</u>. 'Maximal' means in this con-
text that there is no value under consideration which
ranks higher on the scale determined by the open sentence
in the scope of the particle. The evaluative presupposition
expressed by G. <u>gleich</u> in a sentence like (8)a. can roughly
be described as (8)b.:[1]

(8) a. Paul kaufte gleich VIER Zeitungen.
       'Paul bought as many as four papers.'
    b. Max (λ x [Paul kaufte x Zeitungen] , vier)

In contrast to the examples just mentioned, G. <u>erst</u> and
partly also G. <u>nur</u> and E. <u>only</u> evaluate a focus denotation
as ranking low on the relevant scale. Note that the ordering
on a scale is determined by the linguistic co-text in the
scope of the particle, so that the order associated with
a particular co-text may be the reverse of that associated
with another:

(9) a. Only a B+ is adequate. (not a B-)
    b. Only a B+ is required. (not an A-)

In summary, focus particles are structure-sensitive
operators that combine with a structured proposition,
analysed into a focus (β) and a propositional schema (α)
with a variable of the appropriate category:

(10)   f (α,β)

The contributions that they make to the meaning of a sentence can be described in terms of these two components. Focus particles may either include or exclude alternatives to the value of their focus as possible values for the variable of the open sentence in their scope:

(11) a. $(\exists x)_{x \neq \beta} \, \alpha(x)$ (e.g. G. <u>auch</u>, <u>schon</u>, <u>sogar</u>, <u>besonders</u> ...)

    b. $(\forall x)_{x \neq \beta} \neg \alpha(x)$ (e.g. G. <u>nur</u>, <u>erst</u>, <u>bloß</u>, <u>allein</u> ...)

The alternatives selected by some particles (e.g. G. <u>sogar</u>, <u>selbst</u>, <u>schon</u>, <u>noch</u>, <u>erst</u> ...) are ordered on a scale. In such cases, the focus value may also be evaluated as 'maximal' (e.g. G. <u>gleich</u>, <u>selbst</u>, <u>sogar</u>, <u>besonders</u>), 'minimal' (e.g. G. <u>erst</u>, <u>nur</u>, <u>wenigstens</u>, <u>zumindest</u>) or in other more specific ways:

(12) a. $\text{Max} \, (\alpha, \beta) \equiv (\forall x)_{\beta < x} \neg \alpha(x)$

    b. $\text{Min} \, (\alpha, \beta) \equiv (\forall x)_{x < \beta} \neg \alpha(x)$

2. Class membership and uses

The particles to be analyzed in this paper have a variety of different uses. The uses of <u>eben</u> 'level', <u>genau</u> 'exact' and <u>gerade</u> 'straight' as adjectives and of <u>ausgerechnet</u> 'calculated' as past participle, arguably the sources of all other uses, are of no interest in this paper. Nor are the uses as adverbs of manner that are straightforwardly based on the adjectival use. What is of interest here are the other uses, traditionally categorized as adverbial or particle-like (cf. Klappenbach & Steinitz). On the basis of recent analyses of these and related elements it is possible to establish a correlation between certain syntactic and semantic properties of such uses and thus to distinguish various subgroups of adverbs and particles.

Among the expressions mentioned in the title of this paper, <u>eben</u> and <u>gerade</u> exhibit the greatest variety of uses. First, both expressions can be used as temporal adverb:

(13)   Fritz ist (erst) gerade/eben angekommen.
         'Fritz has (only) just arrived.'

Used as temporal adverbs, both expressions may occur by themselves in the fore-field, they may be combined and they may function as focus of a particle like <u>erst</u>.

Secondly, <u>eben</u> and <u>gerade</u> meet all the criteria formulated above for focus particles in one of their uses, just like <u>ausgerechnet</u> and <u>genau</u>:

(14) a. Ausgerechnet/genau/eben/gerade dies ärgert ihn.
                                           'This annoys him.'
     b. Warum will er ausgerechnet/gerade heute kommen?
        'Why does he want to come today, of all days?'

The use of <u>eben</u> and <u>genau</u> in elliptical answers is just another instance of this use as focus particle:

(15)   Das sollte man vermeiden. - Genau/eben.
         'That ought to be avoided. 'Precisely/quite.'

Further instances of this use are examples like the following:

(16)   DAS wollte ich gerade/eben nicht.
         'That is precisely what I did not want.'

In such sentences <u>gerade</u> and <u>eben</u> follow a topicalized focus at some distance, a syntactic option generally available in German (cf. Altmann, 1976; 1978; Jacobs, 1983).

According to the criteria formulated for 'modal particles' ('Abtönungspartikeln') by Weydt in various

publications (Weydt, 1969, etc.), eben is also used in this function:

(17)   Wenn er nicht mitkommen will, werden wir
         eben ohne ihn gehen.
         'If he does not want to come along, we will
         go without him.'

For the rest of the data that remain after these three uses (temporal adverb, focus particle, modal particle) have been filtered out, it seems best to adopt the distinctions proposed in Quirk et al. (1972:439) for adverbials in English. On the basis of both syntactic criteria Quirk et al. distinguish a subclass of intensifiers from other adverbs and phrases that may function as adverbials. These intensifiers are further subdivided into 'emphasizers', 'amplifiers' and 'downtoners'. It is the last two labels which can usefully be employed for a characterization of the remaining uses of eben and gerade. Both of these particles can be used in the sense of E. barely, scarcely or F. à peine, especially if accompanied by noch or so. A convincing semantic description of such downtoners has never been given, but it seems clear that a sentence of the form barely p entails p and furthermore implies that p is only marginally true. A slight change of one parameter in a situation that makes p true would render the sentence false (cf. Anscombre & Ducrot, 1983). This is exactly what eben and gerade express in sentences like the following:

(18)   Das ist eben/gerade (noch) schwer genug.
         'That is just heavy enough.'

On the other hand, eben and gerade can also be used as amplifiers and characterize a predicate a ranking high on a scale. This function is clearest in the compounds nachgerade and geradezu 'downright' and in the collocation nicht gerade/eben 'not exactly':

C.

(19) a. Er war nicht gerade eben begeistert.
'He was not exactly delighted.'
b. Er war geradezu begeistert.

These seem to be all the use types that need to be distingusihed for the expressions under investigation. Of the subclasses distinguished in the preceding discussion, that of focus particles and that of modal particles are best established on the basis of syntactic and semantic criteria. Whether the other labels (temporal adverb, downtoner, amplifier) clearly identify distinct subclasses of adverbs is somewhat doubtful, since the use types distinguished with the help of these labels are - to a certain extent at least - in complementary distribution. Gerade and eben can only be used as downtoners, for instance if the predicate of the relevant sentence denotes some target which can be reached or missed. The use of amplifier, on the other hand requires a predicate denoting an extreme value on a scale.

The examples given so far show that the four particles principally examined in this paper overlap a great deal in the/meaning and uses. This overlap is most striking in the case of gerade and eben (cf. Altmann, 1978). As frequently happens with two partly interchangeable elements, eben and gerade may also be combined, a process normally referred to as 'reinforcement' in historical linguistics.

(20) a. Er ist gerade eben weggegangen.
'He has just left off.'
b. Ich habe es so gerade eben geschafft.
'I just managed to do it.'

Of course, no two of the particles under analysis are interchangeable in all contexts or 'synonymous' on the basis of other criteria. It is,however, precisely the uses that these elements share that are of interest in this paper.

Finally, I would like to point out briefly that most of the uses discussed above can also be observed in connection with related expressions in other languages such as <u>just</u> in English or <u>juist</u> and <u>net</u> in Dutch. The following examples provide some illustration:

(21) a. I just got here. (temporal adverb)
b. I just want TWO apples. (focus particle)
c. That's just marvelous. (amplifier)
d. He just made it (by the skin of his teeth). (downtoner)
e. He is just not an open person. (modal particle?)

3. The use as focus particle
3.1. Identity

Let us now return to our point of departure, i.e. the use of <u>ausgerechnet</u>, <u>eben</u>, <u>genau</u> and <u>gerade</u> as focus particles and the problem of subsuming ^{them} under the analysis sketched out in section 1. <u>Ausgerechnet</u> is probably the easiest case to accommodate within this analysis. Typical uses like the following, in which the focus of <u>ausgerechnet</u> is opposed to other potential values, would seem to suggest that this expression should be grouped with the restrictive particles:[2]

(22) a. Ausgerechnet nach Hamburg möchte er fahren.
'He wants to go to Hamburg of all places.'

b. Warum muß es ausgerechnet jetzt sein?
'Why does it have to be now of all times?'

The possibility of combining <u>auch</u> and <u>ausgerechnet</u> with the same focus (<u>ausgerechnet</u> <u>auch</u> <u>a</u>), however, clearly argues against such an analysis. The most adequate analysis, therefore, seems to be one which regards <u>ausgerechnet</u>, or

the related Dutch expression <u>uitgerekend</u>, as neither
additive nor restrictive, but as purely evaluative. The
focus value of this particle is characterized as minimal
on a scale which, in most cases, orders the entities
under consideration according to their suitability for
achieving contextually given goals. The value given is
the least suitable for the relevant purpose or goal.[3]
The analysis of <u>ausgerechnet</u> as an evaluative particle
accounts for the fact that this expression turns a yes-no
question into a biased question typically implying a negative
evaluation of an affirmative answer.

> (23)   Willst du ausgerechnet jetzt verreisen?
>   'Do you want to leave now of all times?'

Moreover, it offers an explanation for the fact that this
particle can occur in wh-interrogatives introduced by
<u>warum</u> 'why' or <u>wieso</u> 'how come', but hardly by any other
interrogative pronoun. An evaluation of some argument in
some proposition is only possible, so it seems, if all
relevant parameters, i.e. core arguments and circumstances
are actually specified. In contrast to (24)a., (24)b. is
only interpretable as an echo question:

> (24) a. Warum mußtest du ausgerechnet an diesem
>   Tage trinken.
>   'Why did you have to drink on this day
>   of all days?'
>   b. Wer kommt ausgerechnet morgen?
>   'Who is coming tomorrow of all days?'

The focus particle <u>genau</u> 'precisely, exactly' also
does not present any great problems for an analysis in
terms of the parameters developed above. The use of this
expression as focus particle can best be related to the
basic adjectival meaning, if <u>genau</u> is analyzed as a re-
strictive particle that excludes all other values under

consideration as possible values. By excluding all other
relevant alternatives, <u>genau</u> gives a precise identifi-
cation of some given value:

(25) a. Genau FÜNF Leute waren angekommen.
'Exactly five people had come.'
b. genau (α, β)
c. $(\forall x)_{x \neq \beta} \neg (\alpha(x))$

A parallel analysis is not possible for <u>gerade</u> and <u>eben</u>,
even though these expressions are interchangeable with
<u>genau</u> in a number of contexts. <u>Gerade</u> certainly looks like
a restrictive particle in contexts where no alternatives
are available:

(26)   Warum sich gerade heute sein Wunsch erfüllte,
wußte er nicht.
'Why it was today of all days that his wish
came true, he did not know.'

That <u>gerade</u> does not have a restrictive meaning, however,
is clearly shown by examples like the following where
<u>gerade</u> seems to trigger the existential presupposition
typical of additive particles (cf. Altmann, 1978:144ff.):

(27)   Gerade schnelle Autos verlieren rasch an Wert.
'It is precisely fast cars that depreciate
quickly.'
                        (1978:144ff.)
In contrast to Altmann, however, I do not think that such
existential presuppositions, or evaluative presuppositions
for that matter, are the key to an understanding of what
<u>gerade</u> does as a focus particle. The most relevant property,
which it shares with <u>genau</u> and <u>eben</u>, seems to be that it
emphatically asserts the identity of one argument in a
proposition with an argument in another, contextually

given, proposition. Seen in this light, a number of
distributional properties of these particles are easy
to explain: Gerade and eben typically occur in complex
sentences, in sentences with relative clauses, for
instance, whose antecedent is the focus of the particle:

(28)   Damit hat man Mißtrauen gerade *zu einer* Zeit
         verursacht, wo wir das am wenigsten brauchen
         können.
         'This has created distrust at just the time
         we need it least.'

Secondly, simplex sentences with gerade or eben frequently
give the impression of being incomplete and of requiring
some co-text. Compare the following two sentences where
besonders and gerade are more or less equivalent, both
carrying an existential presupposition:

(29) a. Gerade auf Pünktlichkeit legt der Chef
        großen Wert.
     b. Besonders auf Pünktlichkeit legt der Chef
        großen Wert.
        'Punctuality, in particular, is valued highly
        by the boss.'

In contrast to the version with besonders, (29)a. is
clearly elliptical and suggests a preceding co-text which
says something about punctuality. Some of such constructed
examples look even totally unacceptable until such a
co-text is provided. The following example, for instance,
looks peculiar by itself, but makes perfect sense in the
co-text given in (30)b.:

(30) a. ?Gerade Völler hat den Ausgleichstreffer
        geschossen.
        —— 'V. scored the equalizer.'

b. Völler war vier Monate verletzt, aber gerade er
   hat den Ausgleichstreffer geschossen.
   'V. was injured for four months ...'

Altmann (1978:75) noted that the focusing use of eben is
almost completely restricted to demonstrative pronouns and
other anaphoric elements and interestingly enough D. net
is similarly restricted in its distribution. In view of
what was said above about the basic function of these
focus particles, this restriction makes perfect sense.
Finally, 'emphatic assertion of identity' seems a very con-
vincing gloss for gerade, eben and genau whenever the focus
is a time or manner adverbial:

(31)   Gerade (zu dem Zeitpunkt) als ich weggehen
        wollte, kam der Besuch.
        'Just (at the time) when I wanted to leave,
        the visitors arrived.'
(32)   Du benimmst dich grad so, als hätte ich dich
        beleidigt.
        'You are behaving exactly as if I had insulted
        you.'

Emphatic assertion of identity is not necessarily
expressed by restriction and exclusion. The fact that gerade
may be associated with existential implications like auch
or besonders shows that the analysis given for genau cannot
be extended to gerade, though it probably can to eben. The
presupposition of gerade, that results in an emphatic
assertion of identity must thus be formulated as a condition
on the availability of alternative predications for the same
argument:

(33) a. gerade (α, β)
     b. $(\exists x)_{x \neq \alpha} (x(\beta))$

There is one more property that genau, gerade and eben

share in contrast to most, if not all, other particles
that should briefly be mentioned at this point. These three
particles are insensitive to the presence of scope-bearing
elements in the same sentence. To change the linear sequence
of a quantifier and a focus particle normally results in
a change of meaning. The following two sentences however
are perfectly synonymous.

(34) a. Viele Leute suchen gerade alte Autos.
         'Many people are looking for old cars,
         in particular.'
      b. Gerade alte Autos suchen viele Leute.

3.2. Conflicting Roles

Even though 'emphatic assertion of identity' seems
to be the central feature of the meaning of gerade, genau,
eben and perhaps also of some uses of ausgerechnet, there
are certain aspects of the meaning and use of these
particles that have not been accounted for yet. Especially
gerade and eben typically occur in contexts which express
some dissonance of conflict. The two propositions over
which these two particles operate are generally not com-
patible, i.e. they would normally not go together. In other
words, these particles suggest that there is a kind of ad-
versative or concessive relationship between these propo-
sitions p and q (if p, normally not q). The following
examples contain such typical contexts:

(35)   Es ist allgemein bekannt, daß der Keim für den
        Sturz des Schahs gerade in der Erscheinung an-
        gelegt war, von der er zu glauben schien, daß
        sie ihn retten würde.
        'It is generally known that the seeds of the
        Shah's destruction were sown in the very pheno-
        menon which he appears to have thought would
        save him.'

> (36)　Und auch Teilzeitarbeit wird zunehmend zur
> Mangelware. Gerade aber Teilzeitarbeit wird
> von nahezu 40% der arbeitslosen Frauen gesucht.
> 'And even part-time work is becoming a scarcity.
> But it is precisely part-time work which nearly
> 40% of the unemployed women are seeking.'

A close association between gerade and generally incompatible propositions is particularly apparent in examples like the following, where this particle follows a metalinguistic nicht (cf. Horn, 1985) and focuses on a causal preposition.

> (37)　Nicht trotz sondern gerade wegen ihres Verzichts
> auf irdische Güter sind die Amisch glücklicher
> als andere Menschen.
> 'It is not in spite of but because of their re-
> nunciation of worldly pleasures that the Amis_h
> are happier than other people.'

An even clearer example of this affinity are cases where gerade follows a topicalized focus at some distance and carries the nuclear tone:

> (38) a. Nun werde ich geráde nicht nachgeben.
> 'Now I am less prepared than ever to give in.'
> b. Wenn man Kinder bittet, etwas nicht zu tun,
> dann tun sie es geráde.
> 'If you ask children not to do something,
> that's exactly what they will do.'

Further evidence for this affinity is the fact that eben is used as an affirmation if what is affirmed is unexpected and somehow in conflict with what was said before. Note that eben may also introduce a denial:

> (39) a. Sie wollten morgen kommen.- Eben.
> 'They wanted to come tomorrow, didn't they? -
> Precisely.'

b. Er hat doch sein Examen bestanden.-
   Eben nicht.
   'But he passed his exam. -
   That's exactly what he didn't do.'

This affinity between emphatic assertion of identity
and dissonance, conflict or concessivity is of course not
only observable in German. The English counterparts of the
particles under discussion (exactly, precisely, just, very)
also occur very frequently in such contexts:

    (40)   Labour has suffered a serious, and possibly
                fatal haemorrhage of support among the very
                people on whom it most depends...

The affinity is even more pervasive than the examples
discussed so far suggest. Among the entities that can be
asserted to be identical it is probably points-in-time
which provide the clearest examples of this tendency to
combine an assertion of identity with an adversative or
concessive interpretation. The English connectives while,
at the same time, even as, as well as the German connectives
zugleich, indes(sen), während provide clear examples:

    (41) a. It is not easy to find examples of social ser-
          vices that are of general social benefit and,
          at the same time, not costly.
       b. While our competitors are doing extremely well,
          our sales are declining.
       c. Even as it admits a serious pollution problem,
          East Germany is substituting cheap brown coal
          for imported oil.

Given the generality of this phenomenon it seems
sensible to look for a general pragmatic explanation of
this phenomenon. Grice's theory of cooperative conversation
and conversational implicatures provides a basis for such

an explanation. Conversational implicatures can be divided into particularized and generalized ones, the latter requiring no specific context in contrast to the former, and into standard implicatures *vs.* exploitations (cf. Levinson, 1981:126). The former are defined as standard interpretative enrichments derived from the simple assumption that the speaker is observing the maxims of conversation, whereas the latter are necessary to reconcile an ostentatious violation of the maxims with the assumption that the speaker is observing them at a deeper level. The implications that play a role in our examples are clearly standard ones. An emphatic assertion of identity between two values in two propositions is pointless unless this identity is in some way remarkable. Simple topic continuity, for instance (cf. Givon, 1983) is not emphatically stressed with the expressive means under discussion. An identity of values in two propositions will always be remarkable, however, if the two propositions in question do not normally go together. The principles that lead to an interpretative enrichment of assertion of identity to concessivity are obviously principles of economy, i.e. Grice's second maxim of quantity ("do not make your contribution more informative than is required"), the maxim of relevance and the maxim of manner ("Be brief") (cf. Horn, 1985). Such a speaker-based principle of economy has a corollary on the hearer side, as formulated by Atlas & Levinson (1981) in their principle of informativeness, which instructs the hearer to amplify the informational content of the speaker's utterance by finding a more specific interpretation provided this is not controversial. Such interpretative enrichment specifically involves the assumption that stereotypical relations obtain between referents and situations.

4. Implications for the Analysis of other uses

How does this analysis, according to which an emphatic assertion of identity is the central property of the focus particles gerade, eben and genau square with the other uses that these expressions may have? In answering this question, we will again focus on gerade and eben and consider the use of these expressions as temporal adverbs, modal particle (eben), downtoners and amplifier (gerade-(zu)).

It should be quite obvious that the analysis given for the use as focus particle above also makes sense for the use of eben and gerade as temporal adverbs. Klappenbach & Steinitz (1964-77) give `simultaneity`as first entry both for the adverb gerade and the adverbial eben. What needs to be added to this description, however, is a specification of the arguments that enter into this relation of identity. One of the arguments is, of course, supplied by the process, event or state denoted by the clause containing the adverb. The other argument is typically supplied by the moment of utterance in present tense contexts. Examples like the following are thus evaluated at the moment of utterance and by extension also in an environment around this point in time:

(42)a. Fritz schreibt gerade einen Brief.
'F. is just writing a letter.'
b. Er zieht sich eben um.
'He is just changing.'

As a result of a natural semantic change observable in many languages, adverbs originally referring to the moment of utterance often shift their reference to a time immediately preceding or following (cf. Canart, 1979:   ). Unlike soon or presently in English, bientôt in French, or gleich in German, however, which have all been shifted forward in their temporal reference, gerade and eben have primarily extended their reference to the immediate past:

(43) Fritz ist gerade/eben weggegangen.
     `F. has just left.`

Reference to the future, often combined with the idea
of short duration, is however possible (cf. also D.
even):

(44)a. Ich gehe eben (mal) einkaufen.
       (D) `I am just going out to do some shopping.`
     b. Wacht even.
       `Wait a minute.`

The second term of the relation of temporal identity does
not always have to be supplied by the moment of utterance
or an immediate environment thereof. It may also be
supplied by another event:[5]

(45) a. Ich wollte gerade weggehen, da kam Fritz.
        `I was just leaving when F. came.`
     b. Du kommst immer dann, wenn ich gerade keine
        Zeit habe.
        `You always turn up, when I don't have any
        time.`

Thus the relevant generalization for all of the examples
given seems to be that eben and gerade express identity
with a time of evaluation.

The analysis given for the focus particle eben is
also compatible with the use of this word as modal particle.
This use can typically be found in utterances which are
unproblematic for both speaker and hearer. Utterances with
modal eben express well-established facts known to both
speaker and hearer (declarative sentences), natural or
evident consequences (conditionals) or common-sensical
pieces of advice (directives). Thus, eben is quite frequent
in tautologies in this modal function:

(46)a. Das ist eben so.
       `That's the way it is.`
     b. Wenn er nicht kommt, dann kommt er eben nicht.
        `If he doesn't come, he doesn't come.`

It seems quite plausible to link these properties of the
modal particle _eben_ to those described above for the
corresponding focus particle. Seen in this light, the
function of modal _eben_ may be described as characteri-
zing a proposition as given, evident and generally valid
i.e. as identical with what is part of the common ground.
The other properties mentioned in the literature seem to
be derivable from this basic property. What people need
to be reminded of are typically facts they don't parti-
cularly like. It should therefore not come as a surprise
that _eben_ may also express a negative evaluation (cf.
Trömel-Plötz, 1979:326). Both Trömel-Plötz (1979) and
Hentschel-Weydt (1983) have observed that _eben_ frequently
characterizes something as unalterable or irrevocable.
This property seems again related, if not derivable, from
the properties relevant for the focus particle use. The
same is true of a feature mentioned in the analysis by
D.Franck (1980), according to which _eben_ frequently charac-
terizes the content of an utterance as a compromise, i.e.
as requiring concessions by the speaker and/or hearer.
Furthermore, it should be mentioned that there is one use
of _eben_ not clearly identifiable as either focusing or
modal which clearly supports, however, our analysis of
eben as an emphatic expression of identity. In appositions, _eben_
clearly expresses identity and thus characterizes the
preceding expression as summary of a previous description:

> (47) Er begrüßte ihn mit einem kräftigen Schlag auf die
> Schulter, nach bayrischer Art eben.
> 'He greeted him by slapping him on the shoulder,
> according to Bavarian customs that is.'

A further use identified above for _eben_ and gerade was
that of 'downtoner'. Unfortunately, there is no satisfac-
tory semantic analysis available for this use, nor for any
other downtoners, for that matter (e.g. _kaum_, _mit_ _Mühe_ in
German, _hardly_, _scarcely_ in English à _peine_ in French etc.)[6]
All of these expressions are standard operators insofar as
a sentence of the form _scarcely_/_hardly_ p entails p. A more
specific semantic property of these operators is that

whenever a sentence of the form scarcely/hardly p is
truthfully asserted, it is only `imaginally`true`i.e.
only a slight change of the relevant facts would render
p false. In this respect, downtoners are in contrast to
`approximaters`(almost, nearly, all but), which are used
in situations that lack certain conditions required for the
assertion of p.

In contrast to these other downtoners, eben and gerade
and their counterparts in other languages can only be used
in this way if the predicate of the sentence denotes some
target that can either be reached or missed. Our assumption
that adverbial eben and gerade basically imply identity
again provide a suitable basis for explanation of this use.
If these adverbs imply an identity between target or require-
ment and actual performance in examples like the following,
it is clear that only a slight change in the actual perfor-
mance may render the relevant sentence false:

(48) Mein Geld reicht gerade/eben aus.
`My money is just sufficient.`

The use of gerade (zu) and eben as amplifiers can also
be shown to be based on the notion of identity.[7] This use
is only possible in sentences with predicates that can be
ordered on a scale with other, related, predicates. Nicht
gerade and nicht eben imply, just like not exactly in
English, that the value to be described is not identical
to the one given.

(49)a. Das hat unsere Situation nicht gerade verbessert
`That has not exactly improved our situation.`
b. Brilliant war er nicht gerade, aber...
`Brilliant he was not exactly, but...`

The distinction between a plain negative sentence and one
with nicht gerade is minimal in contrastive constructions
like (49)a. In patterns with unmarked word order, however,
one clear difference is that sentences with nicht gerade/
eben cannot be used as reactive moves, i.e. as denials of
a previous positive claim. Sentences like (49) are typically

used if a speaker wants to avoid commitment to a specific characterization. What is asserted is the non-identity of the value to be described with the value given. By extension such negative characterization can also be used as understatements for the opposite value of the one given.

5. Historical evidence

The assumption made in the preceding sections that the basic function of eben, genau and gerade, as well as of related elements in other languages, is to emphatically assert the identity of two values and that this basic meaning may be enriched with adversative or concessive implications due to conversational maxims is well supported by historical facts. This will briefly be demonstrated in connection with a sketch of the semantic development of E. even, i.e. the adverb whose history we know best of all the expressions considered in this paper, thanks to the thorough documentation and description given in the OED.

Up to Early Modern English, adverbial even was used in senses closely related to the adjectival use of the same form i.e. in the sense of 'flat, level, regular, equal'. In addition, the adverb was also used in"weakened senses as an intensive or emphatic particle" with the meaning 'exactly, precisely, just'until the 19th century (cf.OED, s.v. even II). This assertion of identity could be applied to various notional parameters: manner, time, place, shape, etc. Some of these particle-like uses clearly meet the criteria formulated above for focus particles. In examples like the following, even is used t emphasize the identity of two values in different propositions, just like eben and gerade in Modern German:

> (50) a. She that you gaze on so? - Even she I meane.
> (Sh. Two Gent. II.I.)
> b. What you will have it named, even that it is.
> (Sh. Shrew III.IV.)
> c. But thus, I trust, you will not marry her. -
> Good sooth, even thus; therefore ha'done with
> words. (SH. Shrew III.II.)

This use is marginal in Modern English and only preserved
in the *collocation* even as `just at the moment when:

From the 16th century onwards, even came to be used as
a focus particle in the sense of G. sogar, selbst or F.
même. In Modern English adverbial even is primarily used
in this sense, i.e. as an additive and scalar particle,
which furthermore evaluates its focus value as maximal for
the propositional schema in question. According to a widely-
quoted analysis by F. & L. Karttunen (1976), even induces
a scale of likelihood: Among the values under consideration,
the value given is the least likely to satisfy the relevant
open sentence:

(51) Even the president attended the meeting.

This use, according to the OED (s.v. even 9) is `rare in
purely dialectal speech`and foreign to other West-Germanic
languages. The change from an emphatic marker of identity
to the additive scalar particle, which evaluates the deno-
tation of its focus as an extremely unlikely and thus a
remarkable candidate is, however, only the result of a
conventionalization of an interpretative enrichment obser-
vable in typical uses of focusing eben and gerade in German.
As pointed out above, identity is typically emphasized if
it is in some way remarkable.

If even focuses on the antecedent of a conditional, this
particle specifies a series of antecedents and characterizes
the one given as extreme, least likely value for the condi-
tional relation:

(52) Even if YOU HELP ME, I will not be able to finish
the work in time.

Under certain conditions, described in more detail in
König (1985), such concessive conditionals may develop
into genuine concessive sentences. In Modern English the
combination of even and the former conditional conjunc-
tion though is used in a purely concessive sense, just like
the conjunct even so. Analogous developments have led to

the concessive sense of E. <u>even</u> <u>now</u>/<u>then</u> or D. <u>evenwel</u>
'even so'.

6. Conclusion

It was one purpose of this paper to show how focus par-
ticles like G. <u>ausgerechnet</u>, <u>genau</u>, <u>eben</u>, <u>gerade</u> and related
elements in other European languages can be analyzed within
the theoretical framework developed for central instances
of this class in König (1981, 1986) and Jacobs (1983). In
contrast to other focus particles, the expressions discussed
in this paper do not trigger existential presuppositions
which include or exclude relevant alternatives as possible
values for the open sentence in their scope, but emphatically
assert the identity of two values in two different propo-
sitional schemata. This assertion of identity is typically
augmented by evaluative implications or implications of
adversativeness and concessivity, which may then become
conventionally attached to the particles in question. The
analysis initially proposed for focus particles turns out
to be also compatible with other uses of the expressions
investigated and is clearly supported by historical evidence.
The close affinity between emphatic assertion of identity
and concessivity demonstrated above in connection with
some focus particles is of course much more pervasive
than this discussion suggests. This affinity is also appa-
rent in various uses that emphatic reflexives have in a
wide variety of languages (cf. Edmondson &Plank, 1978;
Plank, 1979).

FOOTNOTES

[1] Whether the exact dimension of ordering is specified by the context (cf. Jacobs, 1983: 144ff.) or whether it is inherently specified by the particle itself, as suggested by Karttunen & Peters (1979) is still an open question. In the case of G. _gleich_ the relevant dimension seems to be the suitability of some entity for reaching a certain goal.

[2] Note that the English translation 'X of all Ys' characterizes the set of alternatives under consideration by giving a superordinate term of the focus expression.

[3] The assumption that the scale is one of suitability certainly makes sense for most uses of _ausgerechnet_. This expression can also be used, however, to describe an incredible coincidence, so that we probably have to assume that the precise nature of the scale is not specified by the particle itself but by the context:
> (i) Wie schön. Ausgerechnet an deinem Geburtstag
> kommt dein Bruder dich besuchen.
> 'How nice. On your birthday (of all days) your
> brother is coming to see you.'

[4] The two different ways of expressing identity exemplified by _genau_ vs. _gerade_ could also be illustrated by _nicht anderes als_, _kein geringerer als_ vs. _dasselbe_, _derselbe_.

[5] In examples like the following, _gerade_ functions as a variable, but signals again identity with a variable in the preceding clause:
> (i) Er nimmt, was er gerade findet.
> 'He takes whatever he may find.'

[6] Some interesting properties of such operators are, however, described in Anscombre & Ducrot (1983).

[7] It is also quite plausible that an original metalinguistic use of _eben_ and _gerade_ (or E. _just_) underlies the use of these adverbs as downtoners, amplifiers and perhaps also temporal adverbs. In other words, certain semantic

developments of these words could be parallel to those undergone by E. <u>very</u> or <u>truely</u>.

REFERENCES

Altmann, H. (1976). Die Gradpartikeln des Deutschen. Tubingen: Niemeyer.

Altmann, H. (1978). Gradpartikelprobleme. Tubingen: Narr.

Anscombre, J.C. and O.Ducrot (1983). L'argumentation dans la langue. Brussels: Mardaga.

Canart, P. (1979). Studies in comparative semantics. New York: St. Martin's Press.

Edmondson, J.A. and F. Plank (1978). "Great expectations: An intensive self analysis." Linguistics and Philosophy 2. 373-413.

Franck, D. (1980). Partikeln und Konversation. Kronberg: Scriptor.

Givon, T. (1983). Topic continuity in discourse: A quantitative cross-language study. Amsterdam: J. Benjamins.

Horn, L. (1985). "Metalinguistic negation and pragmatic ambiguitiy." Language 61.121 - 174.

Jacobs, J. (1983) Fokus und Skalen. Zur Syntax und Semantik von Gradpartikeln im Deutschen, Tübingen: Niemeyer.

Karttunen, F. and L. (1977). "Even questions", NELS 7. Cambridge, Mass.

Karttunen, L. und S. Peters (1979)."Conventional Implicatures", in Jh. Ch und P.A. Zinneen (eds.) Syntax and Semantics 11: Presuppositions,New York: Academic Press.

Klappenbach, R. and W. Steinitz (1964-1977). Wörterbuch der deutschen Gegenwartssprache. Berlin (DDR): Akademie Verlag.

König, E. (1977). "Temporal and non-temporal uses of noch and schon in German." Linguistics and Philosophy 1. 173-198.

König, E. (1981). "The meaning of scalar particles in German." In H.J. Eickmeyer and H. Rieser /eds.). Words, worlds, and contexts. Berlin: de Gruyter.

König, E. (1985). "On the history of concessive connectives in English. - Synchronic and diachronic evidence." Lingua 66. 1-19.

Konig, ... (1986) "Gradpartikeln." To appear in \. von Stechow and D. ..underlicn (eds.). Handbuch der Semantik. Konigstein: Athenaum.

Plank, F. (1979). "Intensivierung, Reflexivierung, Identifizierung, relationale Auszeichnung. Variation zu einem semantisch-pragmatischen Thema.' in J. Rosengren (ed.) Sprache und Pragmatik (Lunder germanistische Forschungen 48) Lalmo: Gleerup.

Ross, J.R. and J. Cooper (1979). "Like syntax", in W.E. Cooper and E.C. Jalker (eds.) Sentence Processing. Studies in Honor of Merril Garret. Lawrence Erlbaum Associates.

Taglicht, J. (1984). Message and emphasis. On focus and in English. London: Longman.

Tromel-Plotz, S. (1979). "'Manner sind eben so! ine linguistische Beschreibung von Modalpartikeln aufgezeigt an der Analyse von dt. eben und engl. just". In H. W eydt (ed.) Die Partikeln der deutschen Sprache. Berlin: de Gruyter.

Quirk, R. et al. (1972). A grammar of contemporary English. London: Longman.

Weydt , H. (1969). Abtonungspartikeln. Die deutschen Modalworter und ihre franzosischen Entsprechungen. Bad Homburg: Gehlen.

Weydt, H. und E. Hentschel (1983). "Kleines Abtonungsworterbuch." In H. Weydt (ed.) Partikeln und Interaktion. Tubingen: Niemeyer.